

REMARKS

Applicants respectfully request further examination and reconsideration in view of the above claim amendments and arguments set forth below. The instant specification has been amended. Claims 1 and 13 have been amended. Claims 14 and 15 have been cancelled, without prejudice. Claims 16 and 17 have been added. Two new drawing figures have been added. No new matter has been added as a result of these amendments. Claims 1-13 and 16-17 remain pending in the case.

DRAWINGS

The drawings are objected to under 37 C.F.R. 1.83(a). The rejection asserts that steps of method claims must be shown or the feature(s) cancelled from the claim(s).

Applicants respectfully disagree with the objection and respectfully assert that 37 C.F.R. 1.83(a) does not require that steps of a method claim must be shown. Applicants respectfully assert that 37 C.F.R. 1.83(a) is concerned with structural details. However, Applicants have supplied additional drawing Figures. Applicants have added new Figures 3 and 4. No new matter has been added as a result of the added Figures.

SPECIFICATION

Applicants have amended the instant specification in light of new Figures 3 and 4. No new matter has been added as a result of the amendments to the instant specification. Applicants have added a brief description of Figures 3 and 4 to the Brief Description of the Drawings. Applicants have amended the instant specification by added two new paragraphs describing Figures 3 and 4, respectively, prior to the paragraph at page 25, line 10.

35 U.S.C. §112

Claims 1-15 are rejected under 35 U.S.C. §112, second paragraph. The rejection to Claims 14 and 15 is moot in light of the claim cancellations, without prejudice. Applicants respectfully traverse the rejection to Claims 1-13 and present the following arguments in support.

Independent Claims 1 and 13

Applicants respond below to various points raised in the rejection.

Rejection point 1: Responding to the exception raised by the floating point instruction by returning execution to an instruction in the sequence of instructions at which correct state is known

Claim 1, as amended, recites in part:

- a) automatically inserting a command that tests for *generated floating point status exceptions* into a sequence of instructions to be executed,
- b) responding to a test by said command that *indicates a generated floating point status exception* during pipelined execution of the sequence of instructions by returning execution to an instruction in the sequence of instructions at which correct state is known (emphasis added).

Applicants have amended step b) of Claim 1 to clarify that returning execution to an instruction in the sequence of instructions at which correct state is known is performed *in response to a test by the command that indicates a generated floating point status exception*. Applicants have recited in step a) that the command tests for generated floating point status exceptions.

Applicants respectfully assert that with respect to what triggers the returning execution to an instruction in the sequence of instructions at which correct state is known, the scope of Claim 1 would be clear to one of ordinary skill in the art.

Amended Claim 13 recites, in part:

a computer-executable software process which automatically inserts commands that *test for generated floating point status exceptions* into a sequence of instructions to be executed during dynamic translation of target instructions,

a computer-executable software process for responding to ones of the commands *indicating a generated floating point status exception* by rolling execution of a sequence of instructions back to a point at which correct state is known (emphasis added).

Applicants have amended Claim 13 to clarify that the rolling execution of a sequence of instructions back to a point at which correct state is known is performed in response to one of the commands indicating a *generated floating point status exception*.

Applicants respectfully assert that with respect to what triggers the returning execution to an instruction in the sequence of instructions at which correct state is known, the scope of Claim 13 would be clear to one of ordinary skill in the art.

Rejection point 2: The use of the term "raised"

Applicants have replaced the limitation of "raised" with "generated" in step a) of Claim 1. Applicants respectfully assert that the scope of the limitation in Claim 1 of, "a command that tests for generated floating point status exceptions would be clear to one of ordinary skill in the art.

Applicants have replaced "responding to an exception raised" with "responding to a test by said command that indicates a generated floating point status exception" in step b) of Claim 1. Applicants respectfully assert that the scope of the limitation in Claim 1 of, "responding to a test by said command that indicates a generated floating point status exception" would be clear to one of ordinary skill in the art.

Step c) of Claim 1 has been amended as follows:

executing each instruction in the sequence singly to completion until ~~the a~~
floating point exception is detected ~~again-raised~~.

Applicants have amended step c) to recite that commands are execute until *a floating point exception is detected*. Applicants note that this reflects the language in the pre-amble of, "a process for automatically detecting exceptions." Further, Applicants respectfully assert that the scope of this limitation would be clear to one of ordinary skill in the art.

Claim 13 contains similar language to that of Claim 1. Applicants respectfully assert that the scope of Claim 13 would be clear to one of ordinary skill in the art for the reasons discussed in the response to the rejection's second point.

Rejection point 3: The use of the term "again" in "again raised."

Claim 1, step c), as amended recites:

executing each instruction in the sequence singly to completion until ~~the a~~
floating point exception is detected ~~again-raised~~.

Claim 13, as amended, recites:

a computer-executable software process for executing each instruction in the sequence singly to completion until a floating point exception is detected.

Step c) of Claim 1 has been amended to clarify that the exception in step c) is not necessarily an exception that was previously recited in Claim 1. Applicants have removed the limitation "again" from step c). Applicants respectfully believe that step c) of Claim 1 accurately and clearly describes an embodiment of the present invention.

Applicants have removed the limitation "again" from Claim 13. Thus, Claim 13 has been amended to clarify that the exception that is detected during the executing each

instruction in the sequence singly to completion is not necessarily an exception that was previously recited in Claim 13.

In light of the above amendments and arguments, Applicants respectfully assert that the rejection to Claims 1 and 13 under 35 U.S.C. §112 has been overcome.

Claims 2-12

Claims 2-12 are dependent claims of Claim 1. As such, Claims 2-12 are patentable for at least the same reasons as Claim 1.

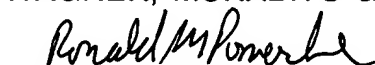
Claim 16-17

Claims 16-17 have herein been added. Applicants respectfully assert that independent Claim 16 and dependent Claim 17 are patentable over the cited art.

Conclusion

For these reasons discussed above, Applicants respectfully submit that Claims 1-13 and 16-17 overcome the cited rejection. Therefore, Applicants respectfully request allowance of Claims 1-13 and 16-17.

Should the Examiner have a question regarding the instant amendment and response, the Applicants invite the Examiner to contact the Applicants' undersigned representative at the below listed telephone number.

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